UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/816,086 | 03/31/2004 | Mehmet Musa | 200402698-1 | 9650 |

22879        7590        09/18/2008
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| EXAMINER |
|---|
| KAWSAR, ABDULLAH AL |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2195 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 09/18/2008 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | Application No. | Applicant(s) |
|---|---|---|
| | 10/816,086 | MUSA, MEHMET |
| **Office Action Summary** | Examiner | Art Unit | |
| | ABDULLAH AL KAWSAR | 2195 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>20 June 2008</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>1-54</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-54</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>31 March 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)       **Office Action Summary**      Part of Paper No./Mail Date 20080910

## DETAILED ACTION

1.    Claims 1-54 are rejected.

### Claim Rejections - 35 USC § 101

2.    35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

3.    Claims 43-54 are rejected under 35 U.S.C. 101 because the claimed invention is directed
to non-statutory subject matter. In claims 43 and 48, the preamble claimed "system", is software
per se, as it is not tangibly embodied on any sort of physical medium. The claim recites "means
receiving", "means determining", "means creating", "means launching", "means directing",
wherein these "means" limitations are described as being software in the specification at least in
paragraph 009, 0022, 0024 and 0026. Applicant is suggested to amend the claim including "a
storage medium" or "processor". Appropriate correction is required.

### Claim Rejections - 35 USC § 112

4.    The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

5.    Claims 8-14, 22-28, 36-42 and 48-54 are rejected under 35 U.S.C. 112, second paragraph,
as being indefinite for failing to particularly point out and distinctly claim the subject matter
which applicant regards as the invention.

       a.    The following language are not clearly understood and indefinite:

         i.       Claim 8, line 2 recites "receiving" it is unclear where it is being received

and who is receiving. Claims 8, line 3 it is unclear how the "candidate for

enhancement" is determined.

         ii.      Claims 22, 36 and 48 has similar limitations as of claim 8 above.


### *Claim Rejections - 35 USC § 102*

6.     The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

    A person shall be entitled to a patent unless –

    (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
    sale in this country, more than one year prior to the date of application for patent in the United States.

7.     Claims 8-14, 22-28, 36-42 and 48-54 are rejected under 35 U.S.C. 102(b) as being

anticipated by Lu(Lu) US Patent Publication 2002/0147855.


8.     As per claim 8, Lu teaches the invention as claimed including a method for enhancing

computer application performance comprising(abstract, lines 11-14):

     receiving an application launch directive (par. 003, lines 7-9 through par. 008);

     determining if the application launch directive specifies an application that is a candidate

for enhancement (par. 0026, lines 4-7);

     receiving an application launch argument list ( par. 003, lines 7-9 through par. 008);

     launching two or more parallel instances of the application when the application is a

candidate for enhancement and when there are a plurality of input argument files included in the

application launch argument list (par. 0032, lines 3-7); and

directing to each application instance an instantiation application launch argument list that includes a corresponding one of the input argument files included in the application launch argument list (par. 0032, lines 7-10).


9.      As per claim 9, Lu teaches determining if the application is a candidate for enhancement comprises determining if the application is included in an enumeration of one or more candidate applications (par. 0146, lines 4-10).


10.     As per claim 10, Lu teaches determining the maximum quantity of parallel threads that can be created (par. 0060, lines 2-6); and

launching a quantity of parallel instances of the application according to the maximum quantity of parallel threads (par. 0061, lines 15-19).


11.     As per claim 11, Lu teaches determining the maximum quantity of parallel threads that can be created comprises determining the quantity of parallel threads that can be created according to at least one of a number of active processors, a per-user maximum parallel thread system limitation or a user-controlled maximum-parallel thread environment variable (par. 0140, lines 21-27).


12.     As per claim 12, Lu teaches determining the quantity of parallel threads that can be created comprises determining the quantity of parallel threads that can be created according to one or more environment variables (par. 0140, lines 21-27; par. 0126, lines 1-12).

13.     As per claim 13, Lu teaches receiving a maximum thread indicator from the application

launch argument list (par. 0060, lines 2-6; par. 0061, lines 1-4); and

        setting the quantity of maximum parallel threads according to the maximum thread

indicator (par. 0061, lines 5-9).


14.     As per claim 14, Lu teaches determining the quantity of input argument files included in

the application launch argument list (par. 0061, lines 5-14); and

        launching a quantity of parallel instances of the application according to the quantity of

input argument files (par. 0061, lines 15-19).


15.     As per claim 22, Lu teaches the invention as claimed including a file processing system

comprising:

        processor capable of executing an instruction sequence (par. 0050, lines 2-4; par. 0033,

lines 1-3);

        memory (par. 0033, lines 3-5);

        console capable of receiving an application launch directive that includes an argument list

(par. 0033, lines 3-5; par. 0003, lines 7-9);

        computer readable medium capable of storing one or more input files and further capable

of storing an output stream (par. 0052, lines 1-3);

        instruction sequence modules stored in the memory including (par. 0055, lines 1-2):

        command line parser module that, when executed by the processor, minimally causes the

processor to(par. 0033, lines 5-6):

identify in a received launch directive an application to be executed(par. 003, lines 7-9 through par. 008);

determine if the identified application is a candidate for enhancement(par. 0026, lines 4-7);

identify one or more input argument files in an argument list included in the application launch directive (par. 0055, lines 1-3; par. 0033, lines 5-6);

generate for a task executive a plurality of load directives and corresponding instantiation argument lists when the identified application is a candidate for enhancement and when there are two or more input argument files in the argument list wherein a corresponding instantiation argument list includes one of the input argument files (par. 0026, lines 4-13); and

task executive module that, when executed by the processor, minimally causes the processor to (par. 0034, lines 9-10):

load into the memory according to the plurality of load directives and corresponding instantiation argument lists an application module that, when executed by the processor, minimally causes the processor to direct an output stream to the computer readable medium according to an input file stored on the computer readable medium(par. 0034, lines 1-4);

direct to the application module a corresponding instantiation argument list generated by the command line parser (par. 0033, lines 7-11); and

cause an assignee processor to execute the application module (par. 0033, lines 7-9; par. 0050, lines 2-4).

16.     As per claims 23-28, they have similar limitations as of claims 9-14 above. Therefore

they are rejected under the same rational as of claims 9-14 above.


17.     As per claim 36, Lu teaches the invention as claimed including a computer readable

medium having imparted thereon instruction sequence modules including (par. 0052, lines 1-3):

        command line parser module that, when executed by a processor, minimally causes a

processor to (par. 0055, lines 1-4; par. 0033, lines 5-6):

        identify in a received launch directive an application to be executed(par. 003, lines 7-9

through par. 008);

        determine if the identified application is a candidate for enhancement(par. 0026, lines 4-

7);

        identify one or more input argument files in an argument list included in the application

launch directive, wherein the one or more input argument files are directed to the application to

be executed(par. 0055, lines 1-3; par. 0033, lines 5-11; par. 0059, lines 8-13; par. 0008 through

par. 0016);

        generate for a task executive a plurality of load directives and corresponding instantiation

argument lists when the identified application is a candidate for enhancement and when there are

two or more input argument files in the argument list wherein a corresponding instantiation

argument list includes one of the input argument files(par. 0026, lines 4-13); and

        task executive module that, when executed by a processor, minimally causes a processor

to(par. 0034, lines 9-10):

load into the memory according to the plurality of load directives and corresponding

instantiation argument lists an application module that, when executed by a processor, minimally

causes a processor to direct an output stream to a computer readable medium according to an

input file stored on the computer readable medium(par. 0034, lines 1-4);

direct to the application module a corresponding instantiation argument list generated by

the command line parser(par. 0033, lines 7-11); and

cause an assignee processor to execute the application module(par. 0033, lines 7-9; par.

0050, lines 2-4).


18.    As per claim 37-42, they have similar limitations as of claims 23-28 above. Therefore

they are rejected under the same rational as of claims 23-28 above.


19.    As per claim 48, Lu teaches the invention as claimed including a file processing system

comprising:

means for receiving an application launch directive, wherein the application launch

directive comprises an application and a plurality of input argument files directed to an instance

of the application (par. 003, lines 7-9 through par. 0016; par. 0129);

means for determining if the application is a candidate for enhancement (par. 0026, lines

4-7);

means for receiving an application launch argument list(par. 0026, lines 4-7; par. 003,

lines 7-9 through par. 008);

means for launching two or more parallel instances of the application when the

application is a candidate for enhancement (par. 0032, lines 3-7); and

means for directing to each application instance an instantiation application launch

argument list that includes a corresponding one of the input argument files included in the

application launch argument list (par. 0032, lines 7-10).

20.     As per claims 49-54, they have similar limitations as of claims 9-14 above. Therefore

they are rejected under the same rational as of claims 9-14 above.

### Claim Rejections - 35 USC § 103

21.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

22.     Claims 1-6, 15-21, 29-34 and 43-47 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lu(Lu) US Patent Publication 2002/0147855, in view of Serrano (Serrano) US

Patent No. 7047232.

23.     Serrano was cited in previous office action.

24.     As per claim 1, Lu teaches the invention as claimed including a method for enhancing

computer application performance comprising(abstract, lines 11-14):

creating two or more parallel threads in response to receipt of an application launch

directives, wherein the application launch argument list comprises two or more input argument

files ( par. 003, lines 7-9 through par. 008; par. 0032, lines 3-7); and

processing the input argument files using the parallel threads (par. 0032, lines 7-10).

Lu does not specifically disclose wherein the application launch directive comprises an

application name and an application launch argument list directly related to an instance of the

application name, wherein the application launch argument list comprises two or more input

argument files and is directed to the application name.

However Serrano teaches wherein the application launch directive comprises an

application name and an application launch argument list directly related to an instance of the

application name, wherein the application launch argument list comprises two or more input

argument files and is directed to the application name (col 9, lines 49-58).


25.     It would have been obvious to a person of ordinary skill in art at the time of invention

was made to incorporate the teaching of Serrano into the method of Lu to have the application

name and application argument list directly related to an instance of the application. The

modification would have been obvious because one of the ordinary skills of the art would utilize

the method of Serrano to have multiple instances of an application running in parallel according

to the argument in the script file or application launch directive.


26.     As per claim 2, Lu teaches determining the maximum quantity of parallel threads that can

be created (par. 0060, lines 2-6); and

creating a quantity of parallel threads according to the quantity of parallel threads that can

be created (par. 0061, lines 15-19).


27.    As per claim 3, Lu teaches determining the quantity of parallel threads that can be created

comprises determining the quantity of parallel threads that can be created according to at least

one of a number of active processors, a per-user maximum parallel thread system limitation or a

user-controlled maximum-parallel thread environment variable (par. 0140, lines 21-27).


28.    As per claim 4, Lu teaches determining the quantity of parallel threads that can be created

comprises determining the quantity of parallel threads that can be created according to one or

more environment variables (par. 0140, lines 21-27; par. 0126, lines 1-12).


29.    As per claim 5, Lu teaches receiving a maximum thread indicator from the application

launch argument list (par. 0060, lines 2-6; par. 0061, lines 1-4); and

setting the quantity of maximum parallel threads according to the maximum thread

indicator (par. 0061, lines 5-9).


30.    As per claim 6, Lu teaches creating two or more parallel threads comprises: determining

the quantity of input argument files (par. 0061, lines 5-14); and

creating a quantity of parallel threads according to the quantity of input argument files

(par. 0061, lines 15-19).

31.    As per claim 15, Lu teaches the invention as claimed including a file processing system

comprising:

processor capable of executing an instruction sequence (par. 0050, lines 2-4; par. 0033,

lines 1-3);

memory (par. 0033, lines 3-5);

console capable of receiving an argument list (par. 0033, lines 3-5);

computer readable medium capable of storing one or more input files and further capable

of storing an output stream (par. 0052, lines 1-3);

instruction sequence modules stored in the memory including (par. 0055, lines 1-2):

argument parser module that, when executed by the processor, minimally causes the

processor to identify one or more input argument files in an argument list received by the console

(par. 0055, lines 1-3; par. 0033, lines 5-6);

functional core module that, when executed by the processor, minimally causes the

processor to direct an output stream to the computer readable medium according to an input file

stored on the computer readable medium (par. 0034, lines 1-4); and

task master module that, when executed by the processor, minimally causes the processor

to (par. 0034, lines 9-10):

create one or more instantiations of the functional core module (par. 0033, lines 5-6);

direct to a corresponding instantiation of the functional core module an input argument

file identified by the processor when it executes the argument parser (par. 0033, lines 7-11); and

cause an assignee processor to execute each instantiation of the functional core module

(par. 0033, lines 7-9; par. 0050, lines 2-4).

Lu does not specifically disclose wherein the console receives an application launch
directives comprising an application name and the argument list, wherein the argument list
comprises two or more input argument files and is directed to the application name.

However Serrano teaches wherein the console receives an application launch directives
comprising an application name and the argument list, wherein the argument list comprises two
or more input argument files and is directed to the application name (col 9, lines 49-58).

32.     As per claims 16-21, they have similar limitations as of claims 2-6 above. Therefore they
are rejected under the same rational as of claims 2-6 above.

33.     As per claim 29, it has similar limitations as of claims 15 above. Therefore it is rejected
under the same rational as of claims 29 above.

34.     As per claims 30-34, they have similar limitations as of claims 2-6 above. Therefore they
are rejected under the same rational as of claims 2-6 above.

35.     As per claims 43-47, they have similar limitations as of claims 1-5 above. Therefore they
are rejected under the same rational as of claims 1-5 above.

36.     Claims 7 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu(Lu)
US Patent Publication 2002/0147855, in view of Serrano (Serrano) US Patent No. 7047232, as
applied to claims 1 and 15, and further in view of Landman et al.(Landman) US Patent No.
7249357.

37.    As per claim 7, Lu teaches allocating an input file to a parallel thread (par. 0091, lines 1-
3);

      Lu and Serrano do not specifically disclose collecting output from the parallel thread; and
organizing the output from the parallel thread according to the order of input file arguments
included in the application launch argument list.

      However Landman teaches collecting output from the parallel thread (col 4, lines 67
through col 5, lines 1-4); and

      organizing the output from the parallel thread according to the order of input file
arguments included in the application launch argument list ( col 8, lines 20-33).


38.    It would have been obvious to a person of ordinary skill in art at the time of invention
was made to incorporate the teaching of Landman into the combined method of Lu and Serrano
store the output of the program execution and organize them in order of input. The modification
would have been obvious because one of the ordinary skills of the art would organize the output
order to have the program output in order of the input to avoid processing of out of order threads.


39.    As per claim 35, it has similar limitations as of claim 7 above. Therefore, it is rejected
under the same rational as of claim 7 above.


### Response to Arguments

40.    Applicant's arguments with respect to claims 1-7, 15-21, 29-35 and 43-47 have been
considered but are not persuasive in view of new ground of rejection. Applicant's arguments with

respect to claims 8-14, 22-28, 36-42 and 48-54 have been fully considered but they are not

persuasive.


41.     In the remarks applicant argues that:

        (1) Claim 43-54 cannot be "software per se" since structural elements are included in the

        claim, per the relevant statue.

        (2) Lu fails to teach receiving an application launch argument list.

        (3) Lu fails to teach determining if the application launch directive specifies an

        application that is candidate for enhancement.


42.     Examiner respectfully disagree to applicant:

        i.      As to point (1), applicant's argument is not persuasive because applicants failed to

rebut the Examiner's interpretation of means in the "means plus function" limitations of claim 43

and 48. In particular, Applicant failed to specifically identify where in the specification at least

one of the means is identified as being a hardware element such that the structure of at least one

claimed "means" would be limited to hardware components. Therefore, Applicant's argument

amounts to a general allegation that means identified in the "means plus function" language are

limited to hardware means. Such argument is not in compliance with 37 CFR 1.111(b). Thus, the

rejection is maintained.

        ii.     As to point (2), applicant supports his argument mentioning that the cited portion

of Lu in par. 0003-008 fails to teach "receiving an application launch argument list without

specifying where the list is received in the specified portion of LU". The claimed limitation is

broad and does not specify who and where the list is being received as mentioned in the 112

rejection. Examiner interprets the limitation as receiving makefile(example.mak) with special

directives in the make utility to compile the modules according to the directives (par. 0003-

0008).

       iii.     As to point (3), applicant supports his argument mentioning that Lu fails to teach

or suggest identifying candidates for enhancement and teaches only identifying candidates for

parallel compilation(parallelization). The claim limitation is broad and does not specify what is

defined by enhancement or what procedure will be considered as enhancement in the invention.

Examiner interprets the limitation as identifying candidates for parallel compilation which

enhances the system performance from serial compilation as recited in the cited prior art to

improve the system performance (abstract).

### *Conclusion*

43.    **THIS ACTION IS MADE FINAL.**  Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

44.    A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing
date of this final action.


45.    Any inquiry concerning this communication or earlier communications from the
examiner should be directed to ABDULLAH AL KAWSAR whose telephone number is
(571)270-3169.  The examiner can normally be reached on 7:30am to 5:00pm, EST.


46.    If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Meng Ai T. An can be reached on 571-272-3756.  The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.


47.    Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system.  Status information for published applications
may be obtained from either Private PAIR or Public PAIR.  Status information for unpublished
applications is available through Private PAIR only.  For more information about the PAIR
system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would
like assistance from a USPTO Customer Service Representative or access to the automated
information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


/Meng-Ai An/                                              /Abdullah-Al Kawsar/
Supervisory Patent Examiner, Art Unit 2195                Examiner, Art Unit 2195